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# ASSESSING COMPETITIVENESS OF THE BALTIC STATES IN TOURISM

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*Tourism competitiveness is a basic requirement for a country's presence in the international tourism market. A comprehensive and systematic assessment of tourism competitiveness and comparisons with other states make it possible to identify its structure, strengths and weaknesses. Assessing competitiveness is a live issue in the Baltic region, where tourism is an important part of the economy and a factor in improving living standards. This study advances the hypothesis that the methodology developed by the author will aid in assessing the tourism competitiveness of the Baltic region states. The research aims to assess the competitiveness of the Baltic tourism industries. It reviews methodologies for assessing the competitiveness of tourism industries and presents an original nine-step methodology for comprehensive assessment thereof. The aggregate index comprises four sub-indices (conditions, infrastructure, accessibility, and attractiveness), 22 components, and over 100 indicators. The calculations use a wide range of data sources. The results are displayed in charts and graphs. The Baltic region states are seen to have a high (Germany) or relatively high level of competitiveness. All the countries perform well on tourism infrastructure development and conditions for doing business in tourism. The Baltic reign states rank differently on the affordability of tourism. Germany is the regional leader in terms of attractiveness, followed by the Russian Federation, Poland, Norway, and Sweden. The analysis showed that Russia lagged behind its competitors in travel formalities, the climate for small and medium businesses, and travel safety; infrastructure, statistical monitoring, and promotion required attention as well. In the conclusion, the proposed methodology and the results of its testing are analysed.*

***Keywords:***
Baltic region, state, methods, tourism, tourism competitiveness

## Introduction

Tourism is now a global social phenomenon with huge potential. According to the United Nations World Tourism Organization (UNWTO), at the beginning of 2019 the total contribution of tourism to the world's gross domestic product amounted to 10.4% (9.1 trillion USD), while the direct contribution was 3.3% (2.8 trillion USD). The tourism industry employs 328 million people (1/10th of world employment). Contribution of tourism to the global investments was 4.4% (0.98 trillion USD) and the contribution to export was 6.6% (1.7 trillion USD). It is noteworthy that the growth in exports of tourism services (+ 4%) has been exceeding the growth in exports of goods (+ 3%) for seven years in a row.

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Competitiveness assessment is a valuable tool for a comprehensive description of the situation and structure of a state's tourism sector to discover its strengths and weaknesses. It can be used for strategic planning of tourism development by relevant authorities, business and other stakeholders [1—5]. Furthermore, it can serve as a platform for multilateral international dialogue in order to understand and predict new trends and risks in tourism, adapt tourism policies, practices and investment decisions of states to speed up the development of new models ensuring long-term sustainable development in the tourism sector [6—8].

This matter is of a particular concern due to the alarming situation with COVID-19: the spread of the disease, the closure of borders between countries, the quarantine measures, etc. International tourism and tourism sectors of individual countries face serious challenges, including those associated with the reconstruction of the market after the pandemic and a new round of competition among countries and their constituent territories, which requires revision of the phenomenon.

The subject of the study was the procedure and results of assessing competitiveness of the Baltic Sea states in tourism.

The objective of the study was to assess competitiveness of the Baltic Sea states in tourism.

## Literature review

Conceptual construction of tourism competitiveness models became the focus of studies in the late 1990s–early 2000s. One of the first recognized models was the one suggested by Crouch and Ritchie in 1999 [9] and revised in 2003 [10]. Their approach was based on Porter's work [11]. The model is based on comparative (human resources, physical resources, knowledge resources, capital resources and infrastructure, as well as historical and cultural resources) and competitive (audit or inventory, maintenance, growth and development, efficiency and effectiveness) advantages. Competitiveness is influenced by micro and macro environments through a number of factors and resources (36 attributes containing 250 factors): core resources and attractors, including supporting ones; destination management; policy, planning and destination development; qualifying and reinforcing determinants. The ideas of the researchers were developed and expanded significantly by Wei-Chiang Hong [12].

Another widely recognized model was the integrative model of competitiveness suggested by Dwyer and Kim [13]. The model consisted of eight basic structural units: core resources (inherited and created); supporting factors and resources (general infrastructure, quality of service, accessibility of destination); destination management; demand conditions (awareness, perceptions and preferences); situational conditions (economic, social, cultural, demographic, environmental, political, etc.) and market performance indicators. Later, the Delphi Technique and Analytic Hierarchy Process were used to assess the importance of each of the indicators when assessing competitiveness [14].

Special attention should be paid to the integrated model suggested by Heath [15]. The developed model is schematically represented in a form of a building and comprises various key facets:

— the foundation that provides an essential base for competitiveness (the key attractors, safety and health, infrastructure and managing capacity, capitalizing on the value-adders, facilitators, experience enhancers);

— the cement, which binds all the elements (communication channels, partnerships, stakeholders and beneficiaries, research and forecasting, managing competitive indicators, international management);

— the building blocks, that are essential to make tourism "happen" in a destination (sustainable development policy, strategic and holistic marketing);

— the tourism script (strategic framework);

— the roof, the key success drivers (vision and leadership, guiding values and principles, political will, entrepreneurship, community focus and human resources development) [16; 17].

At the international level, competitiveness of states in tourism is regularly examined by the UNWTO, the International Council for Tourism and Travel, the World Economic Forum and the Organization for Economic Cooperation and Development.

UNWTO monitors individual statistical indicators of a country (such as tourist traffic, imports and exports, employment in the tourism sector, contribution of tourism to macro-economic indicators), creates and maintains relevant databases, and draws statistical data books and reports [18]. UNWTO is not directly engaged in a comprehensive assessment of competitiveness of states in tourism. The same applies to the International Council for Tourism and Travel, which monitors certain economic indicators of the tourism sector worldwide: exports and imports, contribution of tourism to gross domestic product, employment in tourism, investment and others.

The most known and respected index in the world is *The Travel & Tourism Competitiveness Index* (*TTCI*) of the World Economic Forum [19], which has been calculated every two years since 2007. The latest (2019) Travel & Tourism Competitiveness Index was calculated for 140 countries and was determined using 4 sub-indices (supportive environment; policies to create favorable conditions; infrastructure; natural resources and cultural resources), 14 major components and 90 individual indicators.

The index is based on open-source data, but its significant disadvantage is the widespread use of expert estimations. For example, a close review of the materials shows that these estimates are often clichéd and contradict the real situation and available statistics. One may also question the methodological approaches: the index structure, definition of the assessed territory, adjustment to a common system of measurement (normalization by means of maximum and minimum values without taking into account the statistical distribution of values), not taking into account different levels of their significance, using integrated indices (using the arithmetic mean) [19—21]. Besides, little attention is paid to geographical features, production and consumption chains, the number and structure of tourist arrivals and departures, etc.

A different approach to assessing the competitiveness of states in tourism was adopted by the Organization for Economic Cooperation and Development (OECD) in 2013 [22]. The assessment was based on four categories of indicators: measuring the effectiveness and impact of tourism; determining the ability to provide quality and competitive tourist services, including the business environment; attractiveness; government regulation and control, economic opportunities. In addition, the indicators were divided into three types: core, supplementary and future development indicators.

The core indicators included tourism direct gross domestic product, inbound tourism revenues, overnights, exports of tourism services, labor productivity in tourism services, purchasing power parities, country entry visa requirements, natural resources and biodiversity, cultural and creative resources, visitor satisfaction and national tourism action plan. The supplementary indicators included market diversification and growth markets; employment in tourism by age, education levels and type of contracts; consumer price index for tourism; air connectivity and inter-modality; OECD Better Life Index. The future development indicators included government budget appropriations for tourism; company mortality rate; use of innovative services; structure of tourism supply chains.

The OECD did not actually aim to assess states directly, but rather recommended that the suggested methodology should be used for the OECD members and partners as a tool to assess their competitiveness in tourism.

Cvelbar et al. used regression analysis to assess the importance tourism competitiveness drivers categorized into six groups: economic drivers (macro environment, business environment, general infrastructure) and tourism drivers (resources, tourism infrastructure and management). The research showed the great importance of the general economic environment [23].

Bukher assessed tourism competitiveness of the Russian Federation using the techniques and materials of the TTCI. He reviewed the indicators (added new ones and removed some of the existing ones) and categorized them into three groups: legislation and regulations; business environment; human, cultural and natural resources [24].

Croes and Kubickova [25] suggested ranking tourist destinations basing on the theory of competitiveness. Their index of competitiveness in the tourism sector depends on guest satisfaction, performance in the field of tourism and quality of life [26].

Morozova [27] proposes to assess three types of competitiveness in tourism: the one that is potentially possible, the one that exists and the one that can be achieved. She suggests using the index approach to assessment, i.e. to assess competitiveness in tourism using a weighted arithmetic mean with normalization by the maximum and minimum values. The assessment includes three groups of indicators: competitive success or the current level of competitiveness in tourism; potential competitive advantages; competitive weaknesses.

Studying the index structure, Kapustina and Vyazovskaya rely on Porter's

model [11], which they adapted to tourism. The researchers identify the following groups of indicators: factor conditions; demand conditions; related and supporting industries; company strategy; random events; public policy. To make the assessment, they suggest using the cluster analysis based on the competitiveness of tourism types and competition in the domestic tourism industry [28].

Wu Wei-Wen shows that, depending on the chosen methods of integral assessment of tourism competitiveness, results may range and vary considerably, even if a common approach to structuring the indicators was taken. Therefore, there is a need to use a number of techniques at a time, followed by their comparison. It is also important to understand that the resulting ranks are conventional. What is more, the fact the destination's rank may greatly vary implies that the structure of its competitiveness is imbalanced, therefore helping to identify weaknesses for the subsequent corrective measures [29].

## Methodology

This study into the assessment of tourism competitiveness worldwide, including the Baltic Sea states (Estonia, Latvia, Lithuania, Russia, Poland, Germany, Denmark, Norway, Sweden and Finland) is part of the justification of the strategic planning of tourism development in the Russian Federation (the developed sub-program "Tourism") and interaction with the UNWTO (which gave access to the world database and required the results of calculations). The assessment procedure was based on the previously published paper [30] with some amendments and the use of an optimized number of indicators.

The assessment included the following stages:

— Study of the region, theory and methodology of assessment
— Identification of the subject and the object of the assessment
— Deciding on the assessment principles
— Deciding on the assessment criteria and their parameters
— Collection and systematization of information
— Deciding on the value of the assessment criteria and their parameters
— Adjustment of the assessment criteria parameters to a single system of measurement
— Bringing the assessment criteria parameters to particular generalizing integral indicators
— Revision and correction of the results of the assessment [31].

The object of the assessment was the states worldwide, while the subject of the assessment was their competitiveness in tourism. For the purposes of the study, the list of the Baltic Sea states was made on the principles of integrity, peculiarities of tourism management and with regard to the performance indicators [32]. The basic principles of evaluation were the key assessment and their representativeness, consistency, data availability and reliability, comparability of results, etc.

The sources of data for the assessment included the UNWTO, the World Economic Forum, the World Bank, the International Council for Travel and Tourism, the World Health Organization, the Human Development Report of the United Nations Development Program, the United Nations Office on Drugs and Crime, the National Consortium for the Study of Terrorism and Responses to Terrorism (START), the World Bank Group, the Environmental Performance Index of Yale University, the World Intellectual Property Organization, Cornell University, The Economist, the ICT Development Index of the International Telecommunication Union, the Passports Index (passportindex.org and the International Air Transport Association), the World Trade Organization, the International Civil Aviation Organization, the International Air Transport Association, thnologue.com, Booking.com, trivago.ru, Bloom Consulting and others. Particular attention was paid to the collection of statistical data, with minimum use of expert estimates.

The assessment included four sub-indices (Table 1).

*Table 1*

**Tourism Competitiveness Index**

| Indicator | Description |
|---|---|
| *Accessibility* | |
| Geographical position | Number of neighboring states, distance ratio between the compared countries and the values for other countries: total population, number of international tourist departures, tourism expenditure of residents |
| Reasonable pricing | Accommodation prices, taxi prices, prices for air tickets, airport fees, taxes, purchasing power parity, fuel prices, the Big Mac index, mobile / cellular tariffs, broadband Internet tariffs |
| Formal accessibility | Proportion of states with simplified visa application process, openness of bilateral air services agreements, number of existing regional trade agreements |
| Alternative accessibility (availability of alternative destinations – substitutes) | Similarity of tourism specialization with that of the neighboring states, ratio of the distance to the number of international tourist arrivals in compared states |
| Linguistic accessibility | Number of speakers of a certain national language |
| *Infrastructure* | |
| Transport infrastructure | Quality of aviation infrastructure, number of departures, number of airports, number of airline operator, passenger air traffic, length of the railways, quality of railway infrastructure, quality of roads, quality of road transport, length of renovated roads, number of car rentals, port infrastructure quality |
| Accommodation | Number of accommodation, number of rooms and beds, number of international hotel chains and leading hotels, number of hotel awards in international rankings, hotel ranking according to guest feedback on Booking.com and Trivago |
| Information and communication technologies | Information & Communication Technologies Index |

*The end of Table 1*

| | |
|---|---|
| Travel companies | Number of travel companies, their revenues, number of employees |
| ATMs | Number of ATMs |
| Government | Priority given to the tourism industry, completeness of data submitted to the UNWTO, efficiency of marketing and branding, share of the tourism sector in government expenditure |
| *Conditions* | |
| Safety and security | Number of kidnapping, robbery, assault, sexual violence cases, number of deaths in road accidents, number of terrorist attacks, number of people killed in them over the last 8 years; conflict risks, crime tolerance in the society; number of police officers, economic costs of crime and violence, reliability of police services, economic costs of terrorism |
| Business conditions | Doing Business Index |
| Health care | Number of hospital beds, number of qualified specialists, healthcare costs, 22 disease indicators (primary HIV incidence, incidence of malaria, tick-borne encephalitis, certain infectious and bacterial diseases), drug-related deaths, improved sanitation facilities |
| Nature and environment | Deaths from natural emergencies, deaths and diseases related to the sun's ultraviolet radiation, deaths from environmental pollution, access to improved water sources, freshwater availability, species diversity and proportion of endangered species of animals, plants and amphibians, percentage of territory covered by forest, percentage of territory not occupied by the man-made landscape, percentage of territory covered by agricultural land, environmental situation, proportion of the territories occupied by terrestrial and marine protected areas, number of protected species, air pollution, strictness of environmental regulations, compliance with environmental regulations, ratification of international environmental treaties |
| Human resources | Population density, Inequality-adjusted Human Development Index, human resources and the labor market |
| Development of innovations | Global Innovation Index |
| *Attractiveness* | |
| Number of sites on the List of World Heritage by UNESCO | By category "Culture" and "Mixed", by category "Nature" and "Mixed" |
| Domestic demand | Tourism expenditure within the country |
| External demand | International tourist arrivals, number of international excursionists, expenditure of international tourists in the country |
| Awards received by the country's tourist facilities in the world's leading tourist rankings | Number of awards received by the country's tourist facilities in the world's leading tourist ratings (World tourism awards, TripAdvisor, Travel + Leisure and others) |
| Internet searches | Number of searches in 9 languages in 20 most popular search engines by 273 tags |

To bring the indicator to a single measurement system the following formula was used:

$$C_{ij} = \frac{X_{ij} - \overline{X_j}}{Q_j} + 4,$$

Where $C_{ij}$ is the standardized value of indicator $j$ in country $i$; $X_{ij}$ is the converted indicator $j$ in country $i$; $\overline{X_j}$ and $Q_j$ is the arithmetic mean and standard deviation for indicator $j$ respectively; $i$ = 1, ..., n; n – number of countries; $j$ = 1, ..., m; m — number of indicators.

Integral indices were calculated using the weighted geometric mean. The weighting coefficients and intermediate integral indices were calculated using the formula:

$$Q_i = \frac{r_{jl}}{\sum_{j=1}^{m} r_{jl}},$$

Where $Q_i$ is the weighting coefficient of indicator $j$; $r_{jl}$ is the correlation coefficient of indicator $j$ and vector $l$. To determine vector $l$ for each indicator, the countries were categorized using $k$-means clustering. The number of clusters was determined using dispersion (minimization of dispersion inside the clusters and its maximization among the clusters). After that, the clusters were logically compared by indicators and ranked. The clusters that could not be ranked logically were excluded from vector $l$. For each cluster rank the arithmetic mean of the indicator was calculated, which was then assigned to each assessed object (the country) that belonged to the appropriate cluster. If this was not possible, the value was determined as suggested by Lootsma [33].

For ease of mapping, perception and interpretation, the results of the assessment were transformed into a verbal scale with graduation equal to one standard deviation around the center of the statistical distribution of values of 4: high ($C_{ij}$ > 5.5), above average (4,5> $C_{ij}$ > 5.5), average (3.5> $C_{ij}$ > 4.5), below average (2.5> $C_{ij}$ > 3.5) and low ($C_{ij}$ <2.5) [30].

## Research results

The findings below, received according to the described procedure, reflect the situation in the Baltic Sea states, with regard to competitiveness of other countries in tourism.

The majority of the Baltic Sea states (particularly Germany) are well located in relation to large centers with tourist services and products highly in demand and enjoy high or relatively high internal demand. All this is supported by well-developed transport infrastructure and links between the countries, as well as a relatively high formal openness (in particular, thanks to the Schengen Agreement). Although Europe consists of a large number of states with a lot of competition between them in the tourism market, their alternative accessibility is relatively high (Fig. 1).

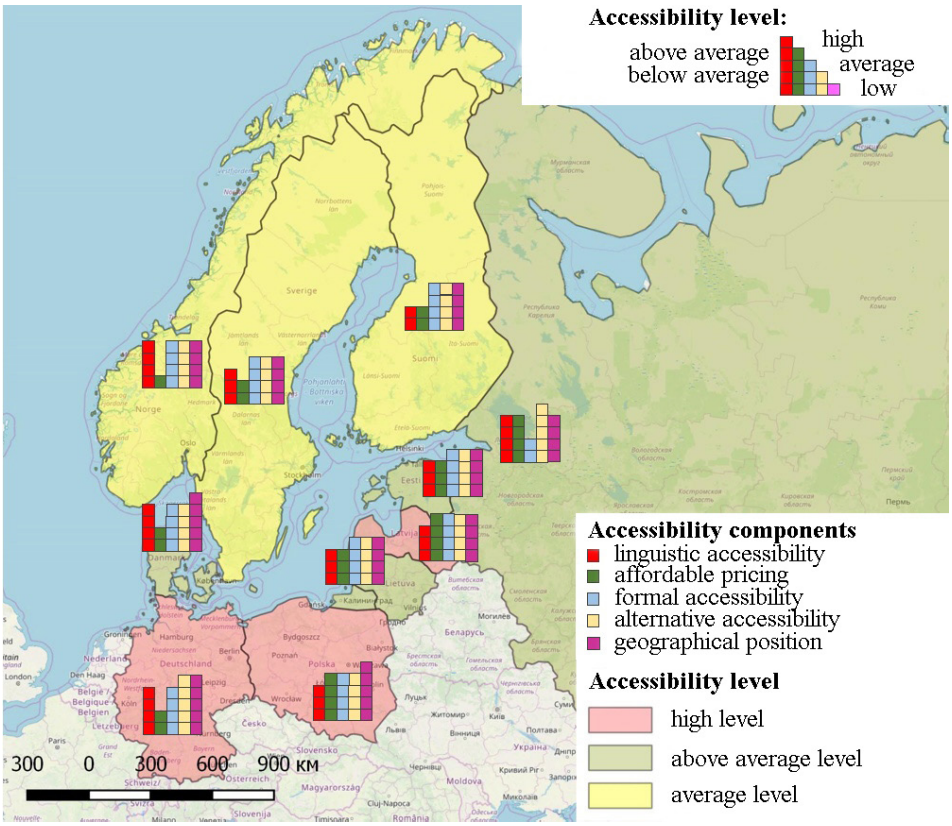


Fig. 1. The level of tourist accessibility of the Baltic Sea states

Unlike its neighbours, the Russian Federation has serious barriers for tourists due to passport and visa formalities and limited openness to bilateral air services agreements. For example, this indicator within the TTCI index is one of the lowest for Russia (it ranks 123d out of 140 states). However, when interpreting this indicator it is necessary to take into account the risks associated with the need to maintain the balance in protecting the state and its citizens from external threats (including terrorism), due to strained relations between Russia and a number of other states.

The weakness of most Baltic Sea states (especially Norway, Sweden, Germany, Denmark and Finland) is their low affordability compared to other world countries. At the same time, the affordability index is a key competitive advantage of the Russian Federation in the international tourism market. The same is true for Poland.

A relatively high level of linguistic accessibility is ensured by similarity of the Germanic languages spoken in the Baltic Sea states, the large number of German speakers and quite a large number of Russian-speakers worldwide. In many states (especially in Norway and Finland), the majority of the local population are fluent in English, especially those employed in the service sector. Besides, the tourist navigation there is well-developed.

In general, Norway, Sweden and Finland feature the average tourist accessibility (due to their low affordability and low linguistic accessibility for Finland and Sweden). The tourist accessibility is high for Germany, Poland, and Latvia and relatively high for the rest of the states (Fig. 1).

The competitiveness of the tourist infrastructure of most Baltic Sea states is relatively high (Fig. 2), with the exception of Denmark and the Russian Federation (the average level). This correlates with the results of other assessments of tourism competitiveness worldwide.

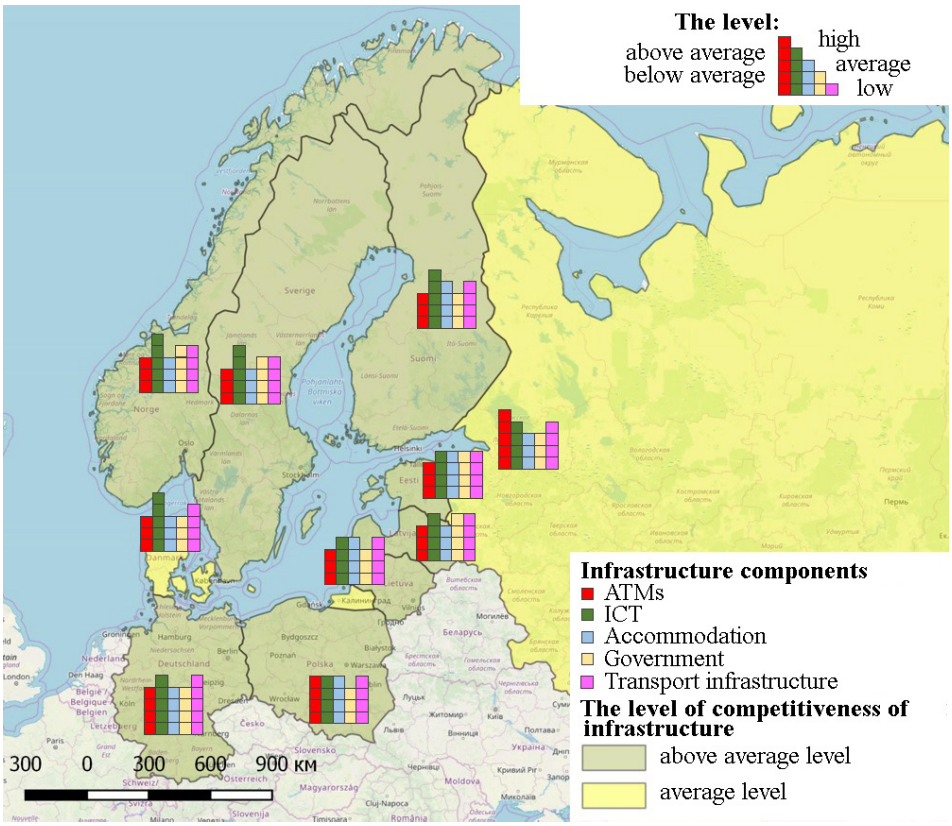


Fig. 2. Competitiveness of tourist infrastructure of the Baltic Sea states

The values are relatively high for most components. The situation is especially favorable in terms of ICT competitiveness. The Russian Federation traditionally enjoys a high level of ATM network development.

All the states in the studied region cooperate with the UNWTO in the exchange of information and are good at branding and promotion (especially Germany, Norway, Estonia and Sweden), with the exception of Latvia and Lithuania.

Of particular interest is the situation in Estonia with high public spending on tourism, a major priority in terms of the country's economic development. Other states have relatively low values of the studied indicators. For example, Russia ranked 86th out of 140 countries in the TTCI in terms of the priority given to the tourism industry in the country.

Competitiveness of tourist accommodation in the Baltic Sea states is average or above average compared to the rest of the world (Fig. 2). Of particular interest is the ranking of accommodation facilities in booking systems according to visitors as they relate specific accommodation facilities with specific customers and their satisfaction. Among the Baltic Sea states, the ranking of accommodation according to visitors was high in Poland, Lithuania and Estonia, relatively high in Germany, Finland, Russia and Latvia, and average in Norway, Sweden and Denmark.

Competitiveness in tourism is significantly affected by conditions (see the corresponding sub-index in Table 1) of development and functioning (Fig. 3). The conditions are highly favourable in such Baltic Sea states as Germany, Denmark, Norway, Sweden and Finland. They are world leaders for the majority of the components and indicators. Other countries, including Russia, have relatively high values.

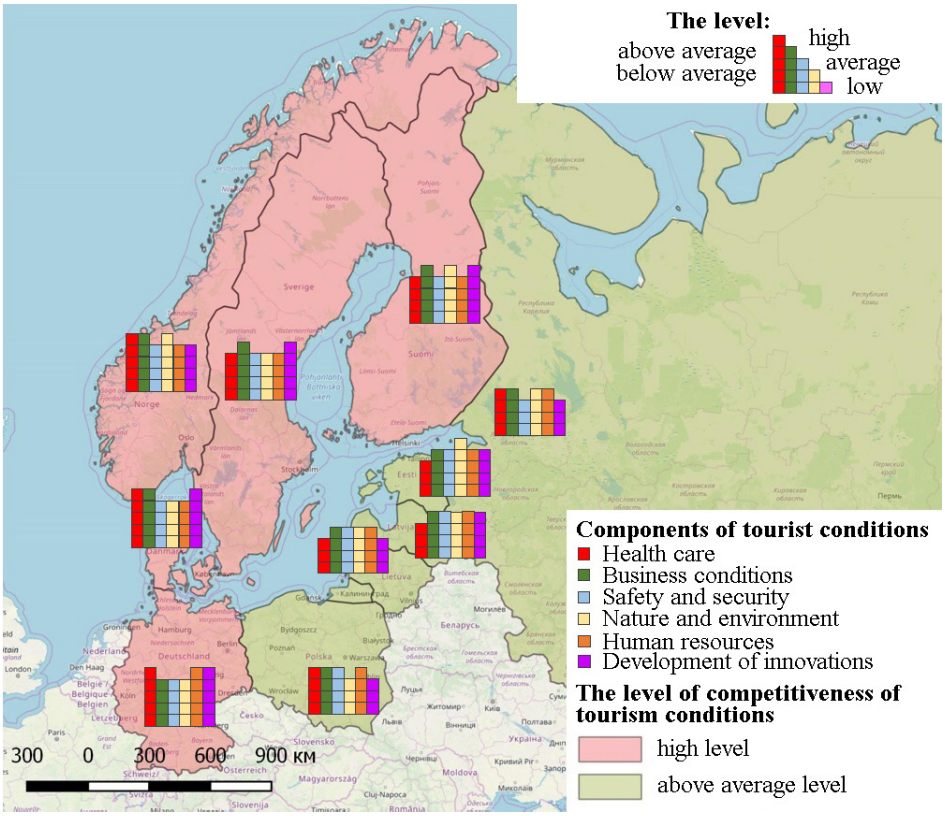


Fig. 3. Competitiveness of tourist conditions in the Baltic Sea states

In the Russian Federation, the weak components of tourism competitiveness are development and innovation (according to The Global Innovation Index 2019) and, particularly, security and the rule of law. Data from international

organizations (WHO, United Nations Office on Drugs and Crime, Global Terrorism Database, World Economic Forum and others) show that in Russia there is a risk of conflicts with other countries, high risk of terrorist attacks, increased mortality rate from road accidents and murders, and the reliability of the police is poor. This is complicated by the subjective international perception of the Russian Federation as a dangerous country to visit, due to the influence of foreign media.

It should be noted that the general conditions of operation and development of the tourism sector show the most significant differences in values among the states (especially when it concerns the Russian Federation), no matter whether the procedure described in the study or procedures described elsewhere, mostly based on the Travel & Tourism Competitiveness Index of the World Economic Forum, are used. The main sources of these differences are the indicators produced by experts, specifically pointing to poor conditions for doing business in Russia (ranking 92nd out of 140 countries) and the risk of visiting the country in the context of high crime and poor performance of the system of law enforcement (ranking 98th), poor environmental situation and weak sustainability of the environment (ranking 82nd). On the other hand, the Travel & Tourism Competitiveness Index of the World Economic Forum greatly overestimated the values of the Russian Federation in relation to health care (ranking 6th), which are refuted by the same data on the disease incidence of the World Health Organization and the internal statistics of Russia's Ministry of Health.

A key component of tourism competitiveness of states is the attractiveness of their facilities (Fig. 4). Among the Baltic Sea states only Germany boasts high level of attractiveness, taking the leading position in the world and in the region by a large number of indicators. A relatively high level of attractiveness is typical for tourist facilities of the Russian Federation, Norway, Sweden and Poland. Finland and Denmark come close, with the lowest positions in the region occupied by Estonia, Latvia and Lithuania. It is noteworthy, however, that each country has its own advantages and specialization, in which it holds a strong position.

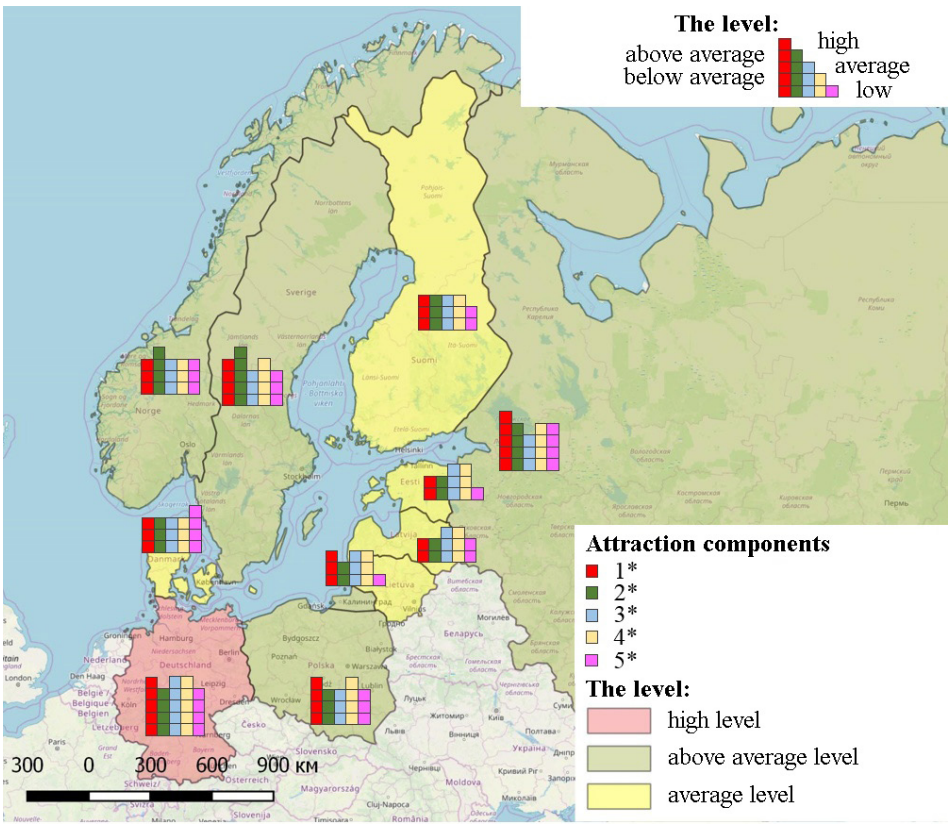


Fig. 4. Competitiveness of the Baltic Sea states
in the attractiveness of tourist facilities

*Note: 1* — number of sites on the List of World Heritage; *2* — popularity according to tourist searches via the leading Internet search engines; *3* — demand for tourist services, goods and products; *4* — demand for tourist services, goods and products from international visitors; *5* — number of awards received by the country's tourist facilities in the world's leading tourist rankings

The integral level of competitiveness of the Baltic Sea states in tourism is shown in Figures 5 and 6. Regarding Figure 6, it should be mentioned that the results obtained using the two approaches are given in different units of measurement. However, they are comparable when comparing the situations in individual countries. For visual clarity, the extreme values are given. The values are high for Germany and relatively high for the rest of the states. According to the Travel & Tourism Competitiveness Index of the World Economic Forum, Russia ranks 39th, and according to this study it ranks 31st.

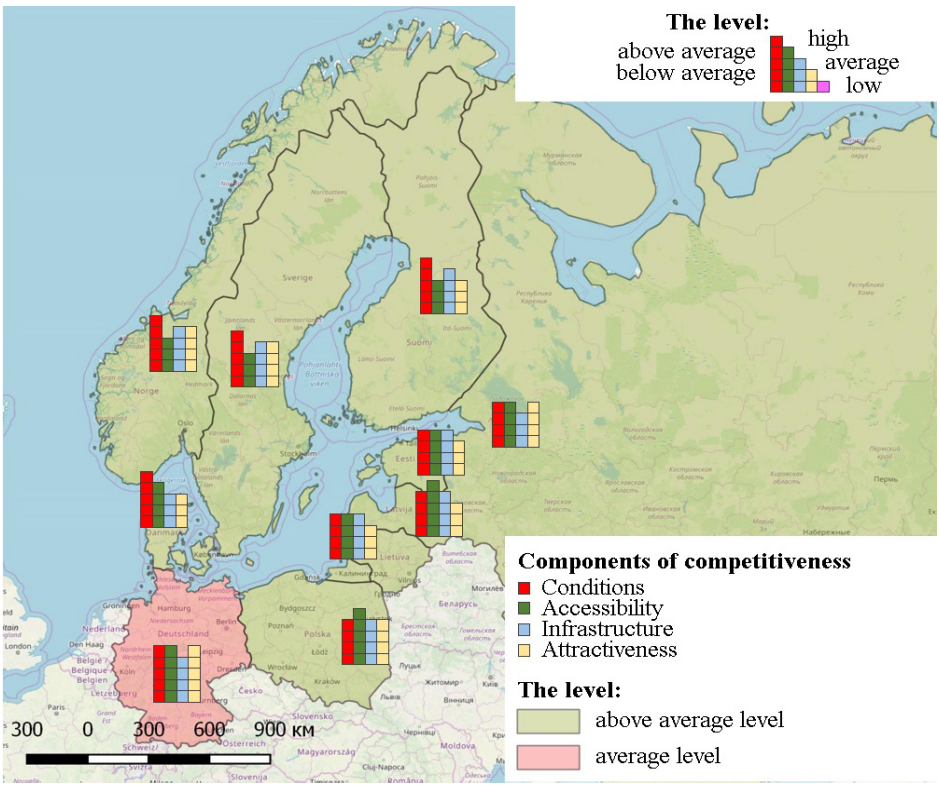


Fig. 5. Integral level of competitiveness of the Baltic Sea states in tourism

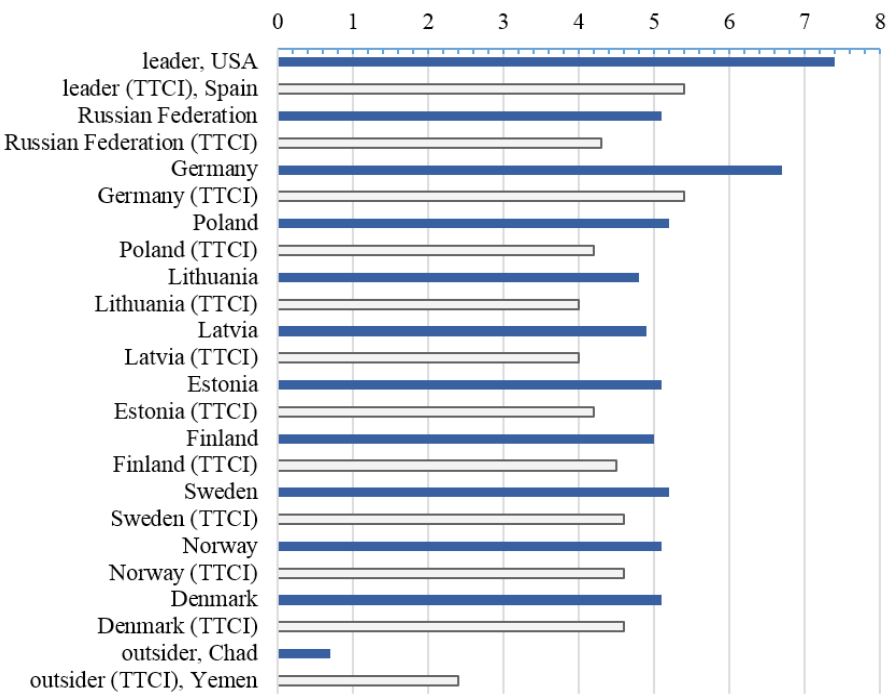


Fig. 6. Comparison of competitiveness of the Baltic Sea states in tourism according to the TTCI and the procedure suggested by the author

For many countries in the region (with the exception of Poland, Latvia, Lithuania and Estonia), a negative tourist balance of payments is typical, which is most pronounced in the Russian Federation and Norway. Although Russia is highly attractive for tourists, the demand for outbound tourism is predominant, which generates a negative balance of payments of more than 23 billion US dollars per year. At the same time, an average international tourist visiting Russia spends about 760 US dollars, while a Russian citizen travelling abroad spends 1060 US dollars. The area of the country accounts for the fact that Russia ranks 16th out of the world countries in terms of tourism expenditure. However, the tourism expenditure per capita in Russia is 13.5 times lower than in Germany, 9.4 times lower than in the USA and 2.1 times lower than in China. A similar situation in connection with domestic tourism expenditure is observed in Poland, Latvia, Lithuania and Estonia. In the other Baltic Sea states this indicator demonstrates high values.

## Conclusion

The procedure suggested and piloted in the study produces reliable results that are consistent with findings in other similar works. The index structure suggested by the author is based on the fact that competitiveness and the arrangement of tourism per se are determined by four categories: attractiveness, infrastructure and general economic conditions (identified separately in most other indices, but rarely considered integrally) and accessibility (not considered in other works). The fourth category is particularly important because a destination can be attractive, boast an excellent infrastructure and economic conditions, but all this becomes irrelevant if the destination is not accessible for visitors. Only considered together, these four categories create a complete picture.

Most works on competitiveness in tourism are based on the Travel & Tourism Competitiveness Index of the World Economic Forum and, at best, also take into account the data of the World Bank, the UNWTO and the International Council for Travel and Tourism. Experience shows that such data are often insufficient, and this can lead to a strong distortion of the results, in particular due to expert opinions. The advantage of this study is the attempt to use of a wide range of data sources and not to use expert summaries of statistical and factual data. However, this approach increases the effort involved in conducting the study greatly and makes the calculations dependent on the data availability and format.

The calculation instruments in most works rely on normalization via minimum and maximum values (which in itself distorts the picture significantly), and the integral index is determined by the arithmetic mean without using weighting factors of indicator significance, which is unlikely to be correct from the perspective of the theory of decision-making, statistics and qualimetry. Of greater interest is the use of the cluster analysis (which still does not take the indicator weight / significance into account) or the regression analysis (which has to deal with such issues as initial vector and non-semantic correlation). In this study, it was decided to normalize the indicators using the statistical approach of standard deviation, which seems to be the optimal approach to get the global picture and make comparisons between countries. The integral index was calculated using the weighted geometric mean, which allowed reducing the effect of averaged data and avoiding the situation when "bad" indicators are masked by better ones, thus taking the differences in significance of converted indicators into account. To address the issue of determining the significance of indicators, vector clusters were ranked by their logical comparison, with subsequent determination of the correlation between the vector and indicator values.

The limitation of the procedure developed in the study, as well as other similar procedures, is the necessity to average the raw data when integrating them, which deprives the studied objects and individual phenomena of their specific features [31]. However, this approach allows structuring and generalizing a wide range of data for subsequent practical use of the assessment results.

The study into competitiveness of the Baltic Sea states in tourism shows that the situation is most favorable in terms of general economic conditions and the tourist infrastructure, with values somewhat higher in the west of the region. The region includes and borders on major tourist centers, yet there is intense competition in the tourism industry and within Europe in general. The Baltic Sea states boast a relatively high tourist accessibility, but have high prices (with the exception of Russia, Poland and Latvia). In terms of attractiveness, the obvious leader is Germany, followed by the Russian Federation, Poland, Norway and Sweden. In general, the Baltic Sea states rank high in global rankings in terms of competitiveness, with Germany being the region's leader (ranking second according to the study and third according to the Travel & Tourism Competitiveness Index).

The results of the assessment show that the Russian Federation should pay more attention to easing tourist formalities. However, the existing situation and trends suggest that these formalities need to be targeted and focused on

improving the quality of tourist traffic rather than the quantity of tourists. It is important to create an enabling environment for small and medium-sized businesses in the tourism sector (removing unreasonable barriers inter alia) and address the issues of ensuring the safety of tourists both as part of prevention and as part of law enforcement. Special attention should be paid to shifting the focus of the media coverage. Unfortunately, Russia is often shown as an enemy and a dangerous travel destination. Action must be taken to combat serious diseases which pose risks to tourists, such as HIV, sexually transmitted infections, encephalitis, tuberculosis, etc.

The tourist infrastructure is traditionally referred to as a major problem of the tourism industry in Russia. However, the study shows that it is quite competitive compared to other states, with the respective values being on an average level. Yet comparing Russia with its direct competitors in the tourism market is not in its favour. This is especially true about accommodation and attention given to tourism by the government. By way of illustration, it is essential to improve the system of federal and regional statistical data on tourism, which currently can hardly give a clear picture of the situation and development of the tourism sector. The strong position of Russia in terms of attractiveness is not supported by sufficient and reasoned measures aimed at promoting the country both in the international and domestic markets. The key action should be taken around the development of tourism for children and adolescents as a tool for their education and development.

The strategic advantage and the concomitant disadvantage of the country is it vast territory, which, from the point of view of tourism, requires a well-developed, good-quality and affordable transport infrastructure. Despite relatively low prices in comparison with other states, most Russians cannot afford travelling and almost half of the population (according to the All-Russian Public Opinion Research Center) does not travel on holiday outside the region where they live. The average transport expenses account for about 40% of the total cost of the journey, which is 10–25% more than in the competitor states (according to the "Strategy of development of tourism in the Russian Federation for up to 2035"). One of the key problems of Russia's tourism industry is the country's negative balance of payments of more than 23 billion US dollars per year. All this and other factors identified by the study require informed decision-making and a reasoned strategy for the development of the country's tourism sector and, in particular, for improving its competitiveness.

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